Change/Errata Information

Issue No: 2 8/79

This change/errata contains information necessary to ensure the accuracy of the following manual. Enter the corrections in the manual if either one of the following conditions exist:

1. The instrument's pcb revision letter is equal to or higher than that which is indicated at the beginning of the change.

2. No revision letter is indicated at the beginning of the change/errata.

MANUAL

Title:	8010A/8012A INSTRUCTION MANUAL
Print Date:	AUGUST 1978
Rev and Date:	1–9/78

C/E PAGE EFFECTIVITY

Page No.	Print Date
1	9/78
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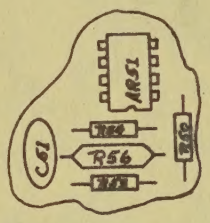
7	8/79

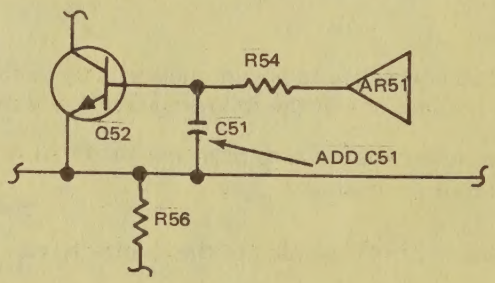
CHANGE #1–11818

Rev -B, A2 Low Ohms PCB Assembly, on page 5-8, Table 5-3, add C51:

C51, Cap Cer, 0.01 uF ±20%, 100V/149153/56282/C023B101F103M/1



On page 8-6, Figure 8-2, add C51 as shown below:



ERRATA #1

On Figure 5-3, change nomenclature of Op Amps
FROM: AR50 and AR51
TO: U50 and U51 respectively.

ERRATA #2

Make the following changes on Table 1-1, 8010A/8012A Specifications:

ADD: Less than symbol (<) to Open Circuit Voltage Specs:
<3.5V
<1V
<1V

Change format and values of ENVIRONMENTAL: Spec as shown, start at OPERATING TEMPERATURE:

OPERATING CONDITIONS:	
TEMPERATURE:	0°C to 50°C (32°F to 122°F).
RELATIVE HUMIDITY:	0 to 80%, 0°C to 35°C (32-95°F) on 2000 kΩ, 20 MΩ and 200 ns ranges.
	0 to 90%, 0°C to 35°C (32-95°F) on all other ranges.
	0 to 70%, 35°C to 50°C (95-122°F).
STORAGE CONDITIONS:	
TEMPERATURE:	(without batteries): –40°C to +60°C (–40°F to +140°F).
	(with batteries): –40°C to +50°C (–40°F to +122°F).

RELATIVE HUMIDITY:	0 to 90%, –40°C to 50°C (–40°F to +122°F). 0 to 90%, 50°C to 60°C (122°F to 140°F).

GENERAL:

MAXIMUM COMMON MODE VOLTAGE:	500V dc/or peak ac.
POWER REQUIREMENTS:	90-132V,or 200-264V, 50 or 60 Hz. 2 Watts (standard models), 3.5 Watts (battery model).
SIZE:	22 cm X 6 cm X 25 cm (8½" X 2½" X 10").
WEIGHT:	1.08 kg (2 lb. 6 oz), Standard model 1.42 kg (3 lb. 2 oz), Battery model.

On Table titled "AC Volts (True RMS Responding)": make the following changes as shown below:

CHANGE: Accuracy heading from: Accuracy for 1-Year
TO: Accuracy: from 5% of Range to Full-Scale, 1-Year.

Extend 20 kHz to 50 kHz column to include the 200V range.

RANGE	20 kHz to 50 kHz
200 mV 2V 20V 200V	±(5% of reading +3 digits)
750V	

On Table titled "Resistance" add less than (<) and greater than (>) symbols to the Full-Scale Voltage column as shown below:

FULL-SCALE VOLTAGE
<0.25V
>1.0V
<0.25V
>1.0V
<0.25V
>1.5V

ERRATA #3

On page 601-1, add the following to the end of paragraph 601-2:

For maximum charging rate when recharging the battery, connect the instrument ot the applicable line power and place the POWER switch in the OFF (out) position.

ERRATA #4

On page 601-3 change the table title as follows:

FROM: Table 601-1. A1 Main PCB Assembly (-01 Option)
TO: Table 601-2. A1 Main PCB Assembly (-01 Option)

On page 601-4, make the following changes:

Change Item No.
FROM: MP12
TO: BT1

CHANGE #2–12020

Rev. -A, Main PCB Assembly
Rev. -A, Main PCB Assembly -01 Option

On page 5-4, and 601-4, make to the following changes:

FROM: H6/Screw, RHP, 6-32 x 3/16/114942/89536/114942/2
TO: H6/Screw, RHP, 6-32 x ¼/385401/89536/385401/2

FROM: H8/Screw, RHP, 6-32 x 3/16/114942/89536/114942/1
TO: H8/Screw, RHP, 6-32 x ¼/385401/89536/385401/Ref.

ERRATA #5

On page 4-8, paragraph 4-51, step 7 make the following changes:

FROM: R6
TO: R4

CHANGE #3–12111

Rev. -C, A2 Low Ohms PCB Assembly

On page 5-8, Table 5-3, make the following changes:

FROM: R58/Res, var, 50k ±20%, ½W/484089/01121/70M1G232K503M/1/1
TO: R58/Res, var, 50k ±20%, 0.5W/501601/89536/501601/1/1

FROM: R62/Res, Dep car, 1k ±5%, ¼W/343426/80031/CR251-4-5P1KT/1
TO: R62/Res, Dep car, 470 ±¼W/343434/80031/CR251-4-5P470E/1

FROM: R64/Res, Dep car, 1.3M ±5%, ¼W/442558/80031/CR251-4-5P1M3T/Ref
TO: R64/Res, Dep comp, 4.7M ±5%, ¼W/220046/01121/CB4755/1

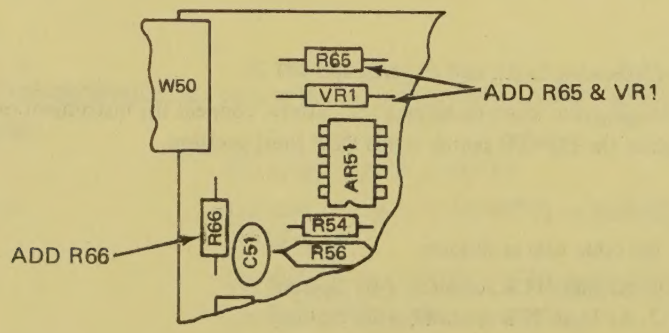
ADD: R65/Res, Dep car, 8.2k ±5%, ¼W/441675/80031/CR251-4-5P8K2/1

ADD: R66/Res, Dep car, 2.2k ±5%, ¼W/343400/80031/CR251-4-5P2K2/1

ADD: VR51/Diode, zener, 6.8V/453019/07910/1N5235/1

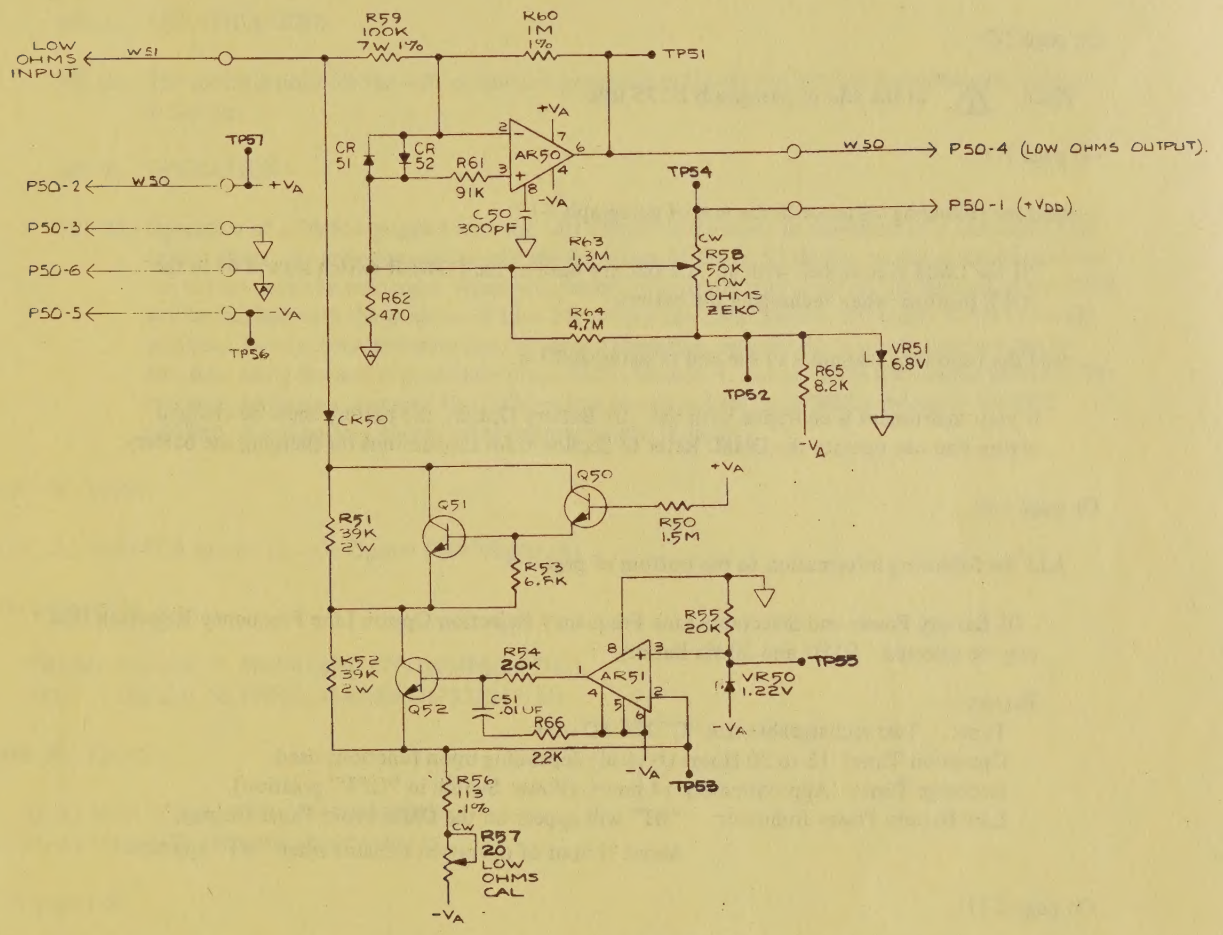
CHANGE TOT QTY of R63 FROM: 2 TO: 1

On page 5-8, Figure 5-3, and page 8-6, make the following changes:



On page 8-6, make the following changes:

Replace the A2 Low Ohms PCB schematic with the following:



NOTE:
ALL RESISTORS RATED IN OHMS, ¼W, 5%.

ERRATA #6

On page 601-3:

Change C11 and C13, FROM: 250V
TO: 100V

On page 2-2:

Place "⚠" at the end of paragraph 2-135 title.

On page 1-2:

Add the following sentence to the end of paragraph 1-17:

"If the DMM is equipped with an –01 battery option, the POWER switch should be in the OFF position when recharging the battery."

Add the following sentences to the end of paragraph 1-6:

If your instrument is equipped with the –01 Battery Option, the battery must be charged before you can operate the DMM. Refer to Section 6 for instructions on charging the battery.

On page 1-8:

Add the following information to the bottom of page 1-8:

–01 Battery Power and Selectable Line Frequency Rejection Option Line Frequency Rejection that may be selected: 50 Hz and 50 Hz Battery

Battery:
Type: Two rechargeable size "C" NiCAD cells.
Operation Time: 15 to 30 Hours (typical) depending upon functions used.
Recharge Time: Approximately 14 hours. (Power Switch in "OFF" position).
Low Battery Power Indicator: "BT" will appear on the DMM Front Panel Display.
About ½ hour of operation remains when "BT" appears.

On page 2-11:

Between step 4 and Figure 2-8, add the following:

5. For operating information on DMMs equipped with the –01 Battery Option, refer to Section 6.

On page 3-1:

Add the following to the end of paragraph 3-2:

If the –01 Battery Option is installed, refer to Section 6 for a description of the Theory of Operation.

On page 4-8:

Add the following to the end of paragraph 4-49:

If your DMM is equipped with the –01 Battery Option, refer to Section 6. Do no attempt this procedure.

On page 601-1:

Delete the last sentence of paragraph 601-2.

Add the following paragraphs:

601-2a. SPECIFICATIONS

601-2b. The specifications for the –01 option are presented in the 8010A/8012A Specifications Table, in Section 1.

601-2c. OPERATION

601-2d. Operation of a DMM equipped with the –01 Option is the same as operation of a standard DMM except that noise rejection can be selected for either 60 Hz or 50 Hz line power environments and the battery must be recharged. When you recieve your DMM, the decal on the bottom of the DMM will be marked with the position of Line Frequency Selection Switch, S3, either 50 Hz or 60 Hz position. To select the alternate line frequency condition, remove the top case cover of the instrument using the access procedure presented in Section 4, and set S3 to the desired position. To recharge the battery, connect the DMM to line power and set the POWER switch to the OFF position. A full battery charge takes approximately 14 hours.

CHANGE #4 - 12337

Rev. -C, A1 Main PCB Assembly, –01 Option (8010A-4011S)

On page 601-4:

FROM: Q6/Xstr, Si, PNP/418707/07910/MPS6562/1/1
TO: Q6/Xstr, Si, PNP/523647/89536/523647/1/1

CHANGE #5 - 12572

Rev. -D, A1 Main PCB Assembly (8010A-4001S)
Rev. -D, A1 Main PCB Assembly (8010A-4011S)

On page 1-6:

Change COMMON MODE REJECTION RATIO, FROM: ≥120 dB
TO: >90 dB

On page 5-5 and 601-5:

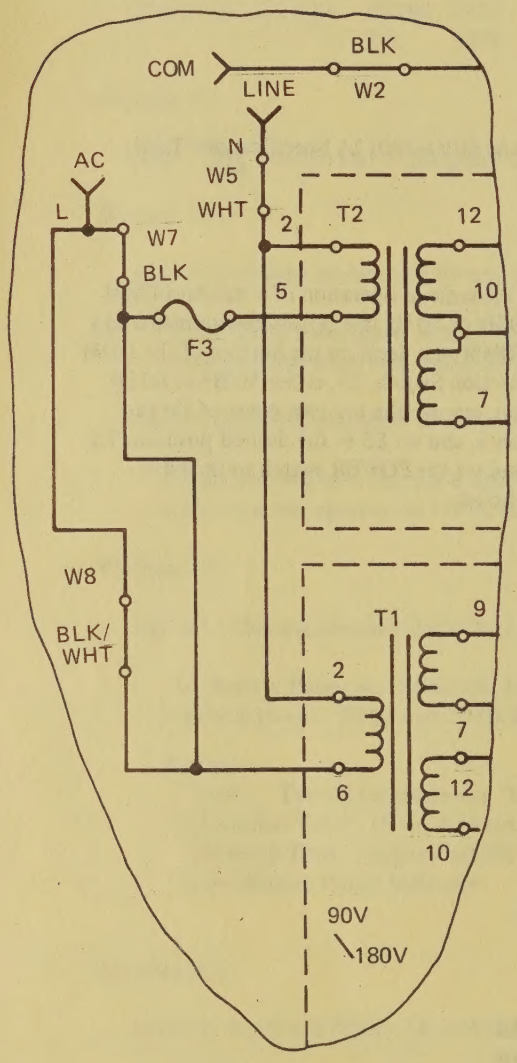
ADD: R33/Res, Dep. Car, 33M ±10%, ¼W/208389/01121/EB3355/1
ADD: R34/Res, Dep. Car, 47M ±10%, ½W/146415/01121/EB4765/1

On page 5-7, 601-6, and 8-2:

Add: "R33" vertically and slightly to the right of T1.
Add: "R34" vertically and toward the right hand side of U8.

On page 8-4:

FROM:



TO: